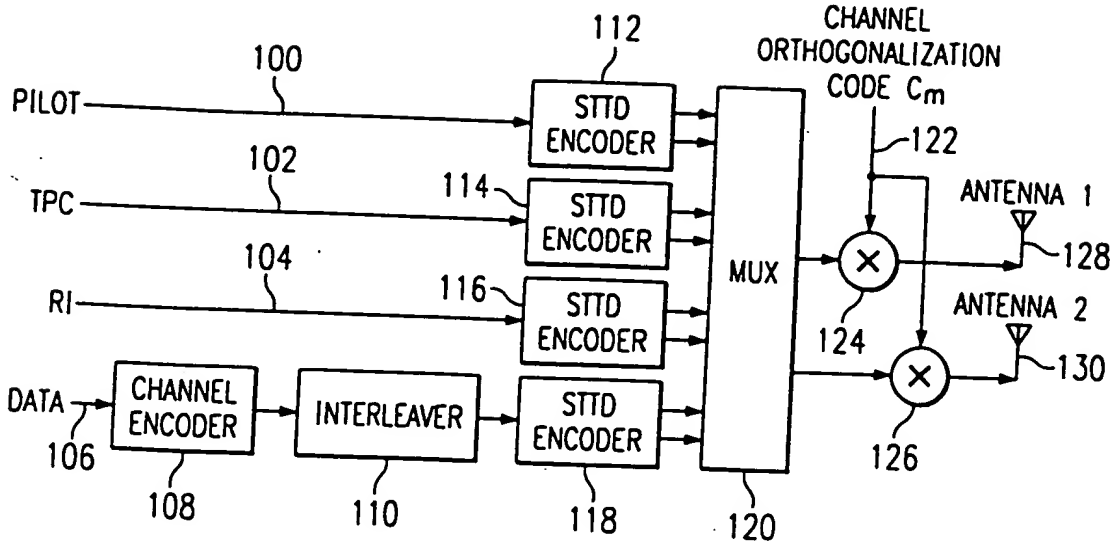


FIG. 1

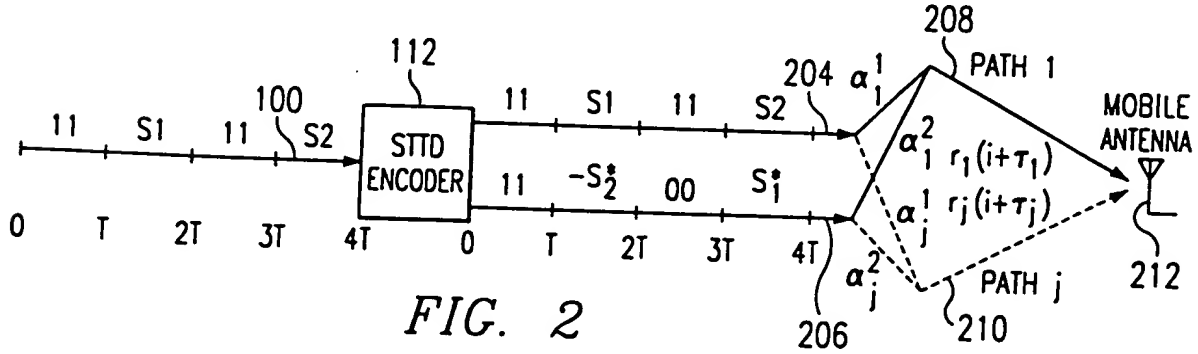


FIG. 2

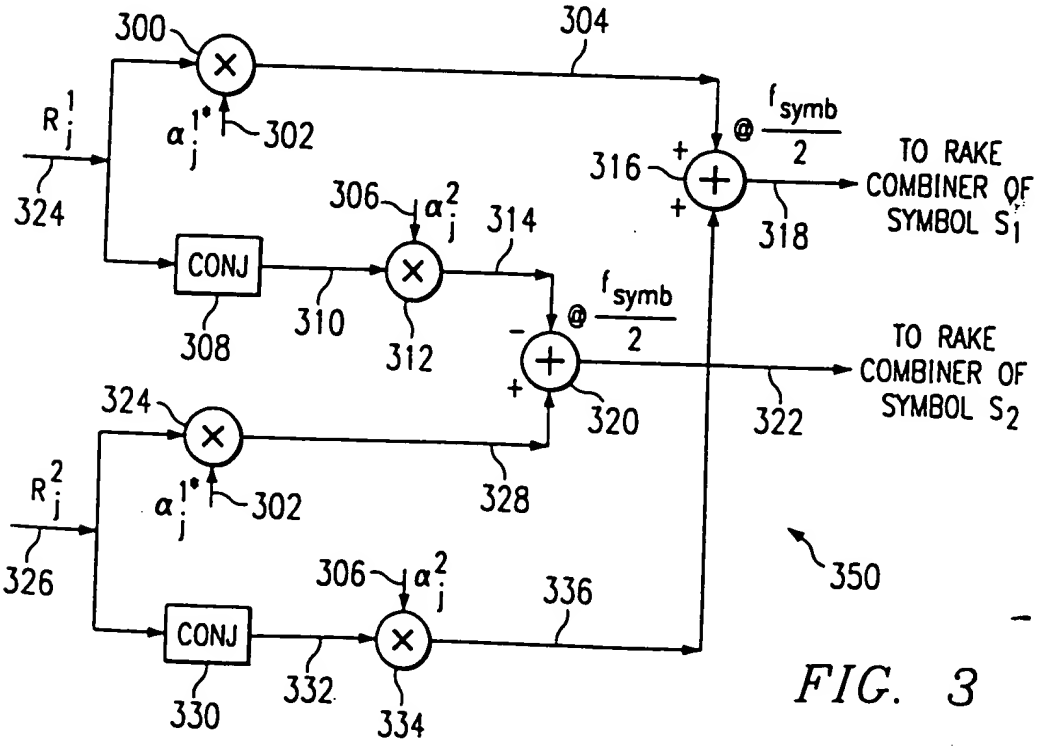
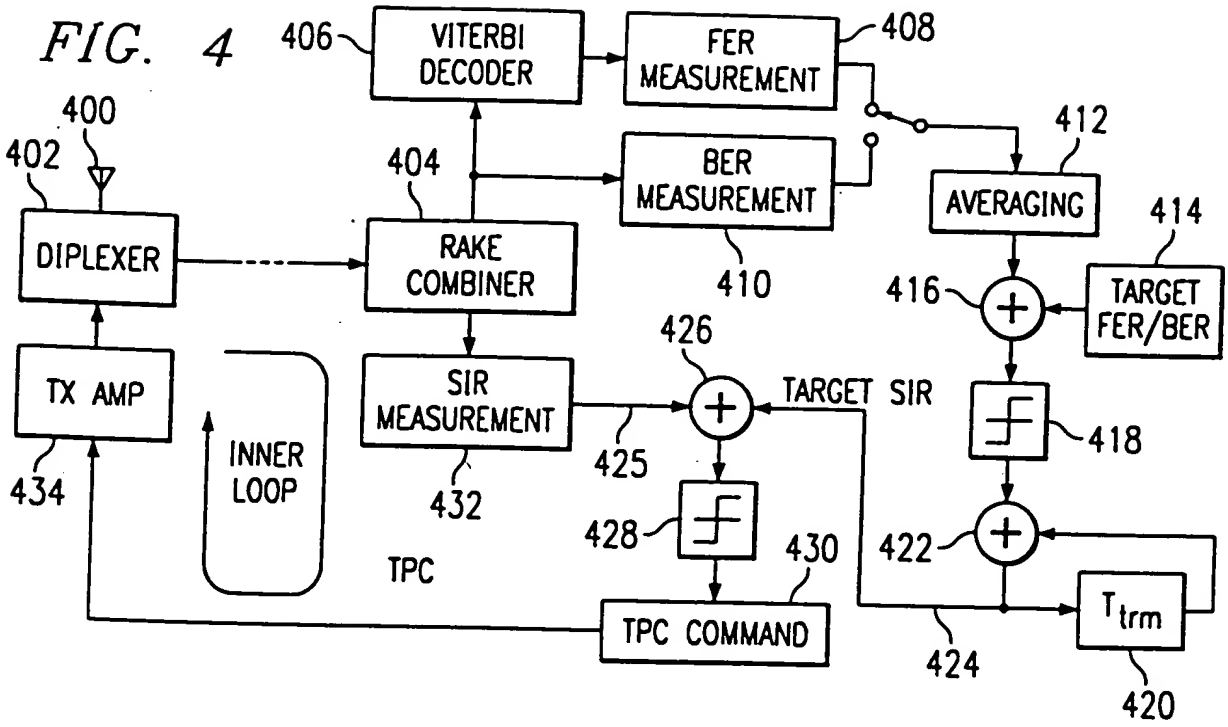


FIG. 3

FIG. 4


406
VITERBI DECODER
FER MEASUREMENT
408
400
402
404
BER MEASUREMENT
412
AVERAGING
414
DIPLEXER
RAKE COMBINER
410
416
TARGET FER/BER
426
TX AMP
SIR MEASUREMENT
TARGET SIR
418
INNER LOOP
425
432
428
430
422
TPC
TPC COMMAND
424
T_{trm}
420
434

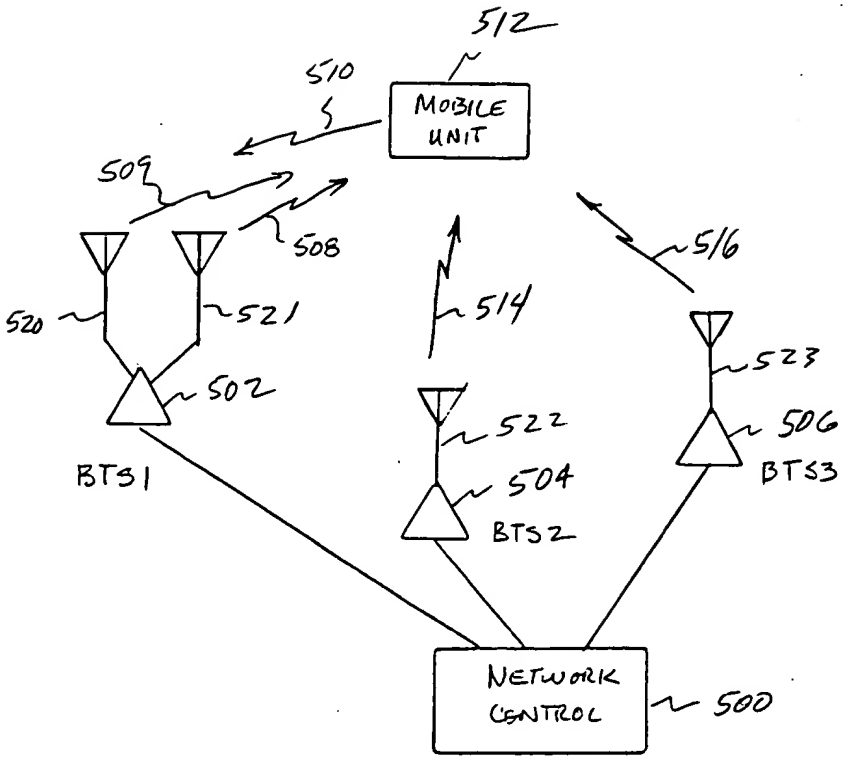

512
510
MOBILE UNIT
509
508
516
514
520
521
523
502
522
506
504
BTS1
BTS2
BTS3
NETWORK CONTROL
500

FIG. 5

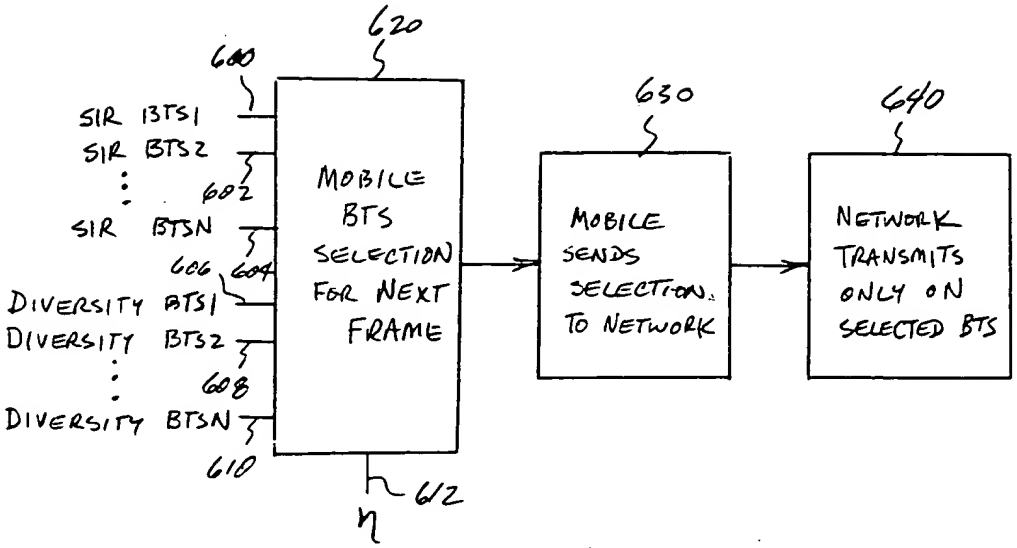


FIG. 6

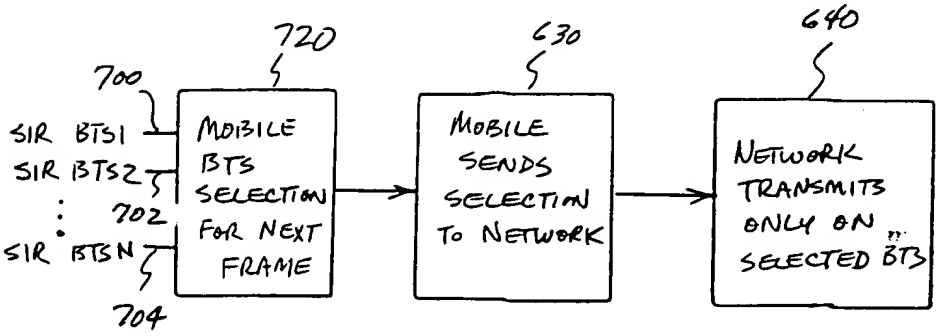


FIG. 7

(PRIOR ART)

Simulation environment	Indoor-to-outdoor pedestrian
Velocity	3 kmph
Data rate	32 KSPS
Information bit rate	8 Kb/s
Info/CRC/tail bit per frame	80/16/8
Convolutional coding rate	1/3, k = 9
Repetition	8 bits/10 ms (312 -> 320)
Interleaver	10 ms, 16*20
DCCH bits/frame	96
Pilot/TPC/TFI bits per slot	8/2/0
Channel Estimation	Perfect
Number of base stations in soft handoff	3
Simulation condition: only SSDT	No antenna diversity at any of the 3 base stations
Simulation condition: STTD + SSDT	Two transmit antennas with STTD encoding at each of the 3 base stations
Relative average powers of soft handoff base stations at the mobile	equal
Base station selection at mobile	Only SSDT :Based upon maximum received power STTD+SSDT: Based upon maximum received power
Frequency of base station selection for SSDT	Once per frame (10 msec.)
Up link errors in base station selection for SSDT (FBI bit error rate)	None
Forward link power control	Only SSDT: One slot averaging for the selected base station STTD+SSDT: One slot averaging for the selected base station
Power control step (dB)	1
Power control rate (Hz)	1600
TPC update delay (slots)	1
TPC error rate	5%
Desired coded BER	10^{-3}

FIG. 8

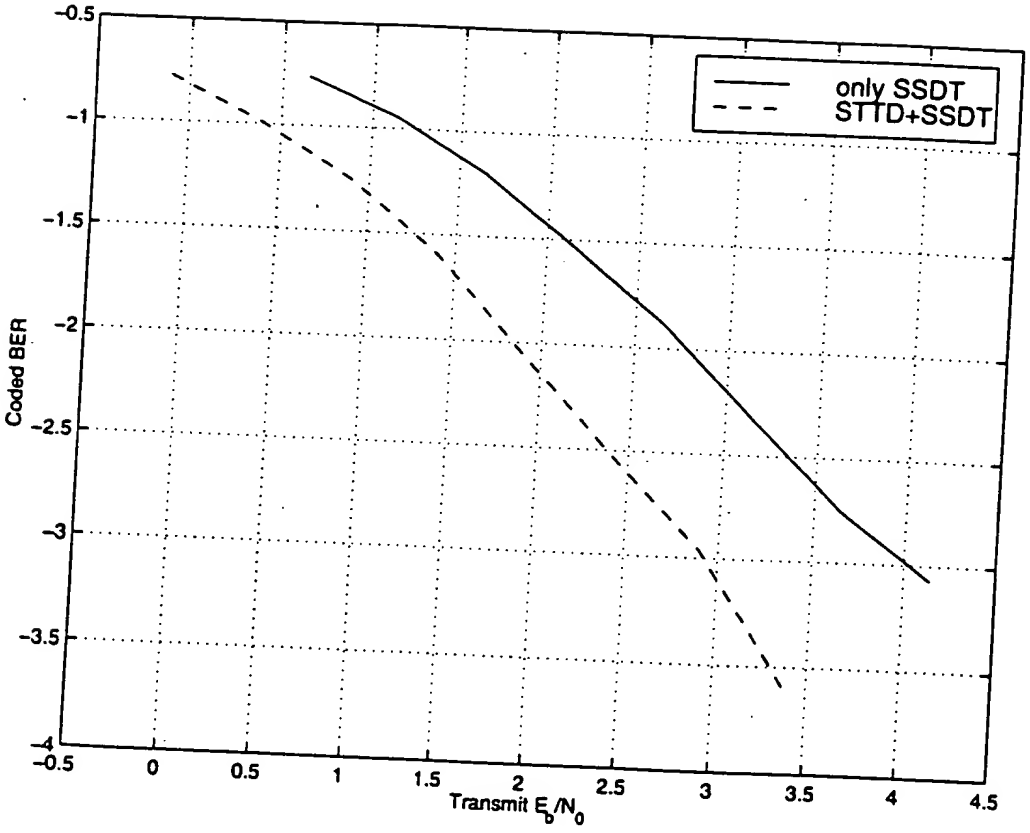

only SSDT
STTD+SSDT
Coded BER
Transmit E_b/N_0
-0.5
-1
-1.5
-2
-2.5
-3
-3.5
-4
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5

FIG. 9